



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,449	01/20/2005	Toshio Fukuda	09792909-6089	8709
26263	7590	05/07/2007	EXAMINER	
SONNENSCHEIN NATH & ROSENTHAL LLP			SHAH, MANISH S	
P.O. BOX 061080			ART UNIT	PAPER NUMBER
WACKER DRIVE STATION, SEARS TOWER			2853	
CHICAGO, IL 60606-1080			MAIL DATE	DELIVERY MODE
			05/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/522,449	FUKUDA ET AL.	
	Examiner	Art Unit	
	Manish S. Shah	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 27 April 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-4, 20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) 20 and 21 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-4 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date 7/12/06; 1/20/05.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-2 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2 of copending Application No. 11/027,147.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the subject matter claimed in the instant application is disclosed in the co-pending application and is covered by the co-pending application since the co-pending application and the application are claiming common subject matter, as follows as shown in Table: 1 below.

TABLE: 1

# 10/522,449 CLAIMS	# 11/027,147 CLAIMS
<p>1. A recording liquid deposited as a liquid droplet on a support for printing thereon, comprising a dye, a solvent for dispersing the dye, and a surfactant containing an organic compound represented by the following chemical formula 1:</p> $ \begin{array}{c} \text{CH}_2-\text{O}-(\text{CH}_2\text{CH}_2\text{O})_n-\text{H} \\ \\ \text{CH}_3-\text{CH}_2-\text{C}-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_3 \\ \\ \text{CH}_2-\text{O}-(\text{CH}_2\text{CH}_2\text{O})_m-\text{H} \end{array} \quad (1) $ <p>where m and n are integers not less than 1.</p> <p>2. The recording liquid according to claim 1 wherein the sum of m and n in the chemical formula 1 for said surfactant is not less than 2 and not larger than 30.</p>	<p>1. A recording liquid comprising: a coloring matter; a solvent for dissolving or dispersing the coloring matter; and a nonionic surfactant, wherein the recording liquid is contained in a liquid chamber of a liquid ejection apparatus comprising the liquid chamber for containing a liquid, a pressure-generating element which generates a pressure to press the liquid contained in the liquid chamber, and an ejection device which is provided with an ejection port for ejecting the liquid pressed by the pressure-generating element in the form of droplets, which drives the pressure-generating element with a pulsed current at a frequency of 5 kHz or more, and which ejects each droplet with a volume of 10 pl or less, the recording liquid being formed into droplets and allowed to adhere to an object so that recording is performed on the object; and wherein the recording liquid has a foaming power of 0 mm to 50 mm and a foam stability of 0 mm to 50 mm, the foaming power and the foam stability being determined by substantially the same test method as that used to determine the foaming power and foam stability according to JIS-K3362.</p> <p>2. The recording liquid according to claim 1, wherein the nonionic surfactant is a compound represented by Chemical Formula 1:</p> $ \begin{array}{c} \text{CH}_2-\text{O}-(\text{CH}_2\text{CH}_2\text{O})_n-\text{H} \\ \\ \text{CH}_3-\text{CH}_2-\text{C}-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_3 \\ \\ \text{CH}_2-\text{O}-(\text{CH}_2\text{CH}_2\text{O})_m-\text{H} \end{array} \quad (1) $ <p>wherein each of m and n is an integer of 1 or more, and the sum of m and n is 2 to 30.</p>

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

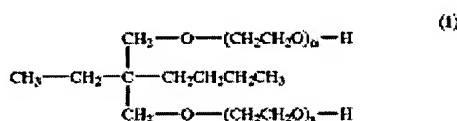
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matrick (# US 5141556) in view of Takamiya (# US 7081330).

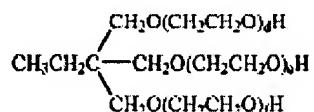
Matrick discloses a recording liquid deposited as a liquid droplet on a support for printing thereon, comprising a dye (column: 2, line: 60-65; column: 10, line: 50-66), a solvent for dispersing the dye (column: 12, line: 45-65), and a surfactant containing an organic compound (column: 13, line: 35-68; column: 14, line: 1-30), wherein said surfactant is contained in an amount not less than 0.05 wt % and not larger than 10 wt % (column: 14, line: 30-35), and at 25 degree C., the surface tension is not less than 30 N/m and not larger than 60 N/m and the viscosity is not larger than 15 mPs. S (column: 15, line: 35-45).

Matrick differs from the claim of the present invention is that the surfactant containing an organic compound represented by the following formula:



Art Unit: 2853

Takamiya teaches that to inhibiting the solubility of the image are, the developing solution (a recording liquid) includes the surfactant, wherein the surfactant containing an organic compound represented by the following formula (column: 10, line: 1-10).



It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the surfactant of Matrick by the aforementioned teaching of Takamiya in order to have high quality image.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manish S. Shah whose telephone number is (571) 272-2152. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2853

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Manish S. Shah
Primary Examiner
Art Unit 2853

MSS

5/21/07